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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,019	06/19/2002	Teruto Tanaka	NAK1- BR22	4938
21611	7590	04/23/2004	EXAMINER	
SNELL & WILMER LLP 1920 MAIN STREET SUITE 1200 IRVINE, CA 92614-7230			AWAD, AMR A	
			ART UNIT	PAPER NUMBER
			2675	

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/088,019

**Applicant(s)**

TANAKA ET AL.

**Examiner**

Amr Awad

**Art Unit**

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2002.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-19 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references cited in the information disclosure statement filed March 14, 2002 have been considered by the Examiner; see attached PTO-1449.

### ***Claim Objections***

2. Claim 3 objected to because of the following informalities: the claim does not start from a new line. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 7-8, 12-13 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito (European Patent Publication NO. EP 0989 757).

As to independent claim 1, Saito (figures 10 and 12) teaches an image signal processing apparatus for use as a preprocessing apparatus for an image display apparatus that displays images in accordance with color image signals (abstract), comprising: an image signal receiving means (screen 3) for receiving a color image signal; and a chromaticity adjustment means (chromaticity sensor 4 and color conversion coefficient calculation unit 7) for performing a calculation using signal values of the received color image signal and adjusting the chromaticity of an image to be

displayed by the image display apparatus for each of primary colors red, green, and blue separately (figures 1-3, page 2, line 51 through page 4, line 11, and page 12, lines 51-55).

As to claim 2, Saito teaches that the chromaticity adjustment means includes: a matrix operation means (color processing unit 8) for multiplying the signal values of the received color image signal with a determinant; a parameter receiving means for receiving a predetermined parameter; and a determinant changing means for changing the determinant in accordance with the received parameter, wherein the chromaticity adjustment means adjusts the chromaticity for each primary color by performing a calculation using the changed determinant (paragraph NO. 25 in page 3).

As to independent claim 7, the claim is substantially similar to independent claim 1 and would be analyzed as previously discussed with respect to claim 1.

As to claim 8, the chromaticity adjustment means includes: a matrix operation means for multiplying the signal values of the received color image signal with a determinant; a parameter receiving means for receiving a predetermined parameter; and a determinant changing means for changing the determinant in accordance with the received parameter, wherein the chromaticity adjustment means adjusts the chromaticity for each primary color by performing a calculation using the changed determinant (paragraph NO. 25 in page 3).

As to claim 12, the claim is substantially similar to claim 1 and would be analyzed as previously discussed with respect to claim 1.

As to claim 13, Saito teaches that the chromaticity adjustment means includes: a matrix operation means for multiplying the signal values of the received color image signal with a determinant; a parameter receiving means for receiving a predetermined parameter; and a determinant changing means for changing the determinant in accordance with the received parameter, wherein the chromaticity adjustment means adjusts the chromaticity for each primary color by performing a calculation using the changed determinant (paragraph NO. 25 in page 3).

As to claim 18, the claim is a method corresponds to apparatus of claim 1 and would be analyzed as previously discussed with respect to claim 1.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-5, 9-10, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito in view of Foley et al. (US patent NO. 5,510,851; hereinafter referred to as Foley).

As can be seen above, Saito teaches all the limitations of claims 3-5, 9-10 and 14-16 except the citation of having a gamma correction means for performing a gamma correction on the color image signal.

However, Foley teaches a method and apparatus for dynamic purity correction (abstract), and wherein a gamma correction (col. 2, lines 16-24 and col. 3, lines 51-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Foley to be included to Saito's device so as motivated by Foley, to be able to rapidly calculate and apply smoothly varying correction signals in the digital domain on a pixel by pixel (col. 1, lines 59-62).

7. Claims 6, 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito in view of Yajima et al. (US patent NO. 6,356,277; hereinafter referred to as Yajima).

As can be seen above, Saito teaches all the limitations of claims 6, 11 and 17 except the citation of having a YUV signal, and signal conversion means for converting the received YUV signal into an RGB signal.

However, Yajima teaches a YUV-RGB digital conversion circuit and picture display device (abstract) that includes chroma digital circuit (14) for supplying a YUV signal to a YUV to RGB conversion circuit (16) so that an RGB image can be displayed on the LCD (30) (figure 1 and col. 5, lines 38-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Yajima having a conversion circuit for converting YUV signal to RGB signal, to be incorporated to Saito's device so

as to be able to reduce the scale of the circuit by being able to immediately convert YUV to RGB.

#### **Allowable Subject Matter**

8. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ryan (US patent NO. 6,075,514) teaches a color table look-up having correcting pixel of color values.

Gonslaves (US patent NO. 6,451,557) teaches an apparatus for color manipulation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703)308-8485. The examiner can normally be reached on Monday-Friday, between 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras can be reached on (703)305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



4-18-2004

A.A.